



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/579,976

05/22/2006

Jong Chul Bang

9988.327.00

3738

30827

7590

10/27/2010

MCKENNA LONG & ALDRIDGE LLP  
1900 K STREET, NW  
WASHINGTON, DC 20006

EXAMINER

RIGGLEMAN, JASON PAUL

ART UNIT

PAPER NUMBER

1711

MAIL DATE

DELIVERY MODE

10/27/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,976	<b>Applicant(s)</b> BANG, JONG CHUL	
	<b>Examiner</b> JASON P. RIGGLEMAN	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,10 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,10 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Foreign reference</u> .                |

## **DETAILED ACTION**

### ***Status of Claims***

1. Applicant's reply filed on 8/13/2010 is acknowledged. Current pending claims are 1-2, 5, 10, and 13. Claims 3-4, 6-7, 11-12, and 14-19 have been cancelled. Claims 1-2, 5 and 13 are amended.

### ***Response to Arguments***

2. Applicant's arguments, filed 8/13/2010, have been considered. The applicant's arguments with respect to the claims are moot in view of the new grounds of rejection (necessitated by amendment). The claim objections are withdrawn. The 112, second paragraph, rejection of claim 1 is withdrawn in view of the amended claim. The rejection of claims 1-2, 5, 8-10, and 13 under 35 U.S.C. 103(a) as being unpatentable over Sassone (German Patent Publication No. DE19650861) in view of Riller et al. (German Patent Publication No. 3728608) are withdrawn in view of the amended claims.

### ***Claim Rejections - 35 USC § 103***

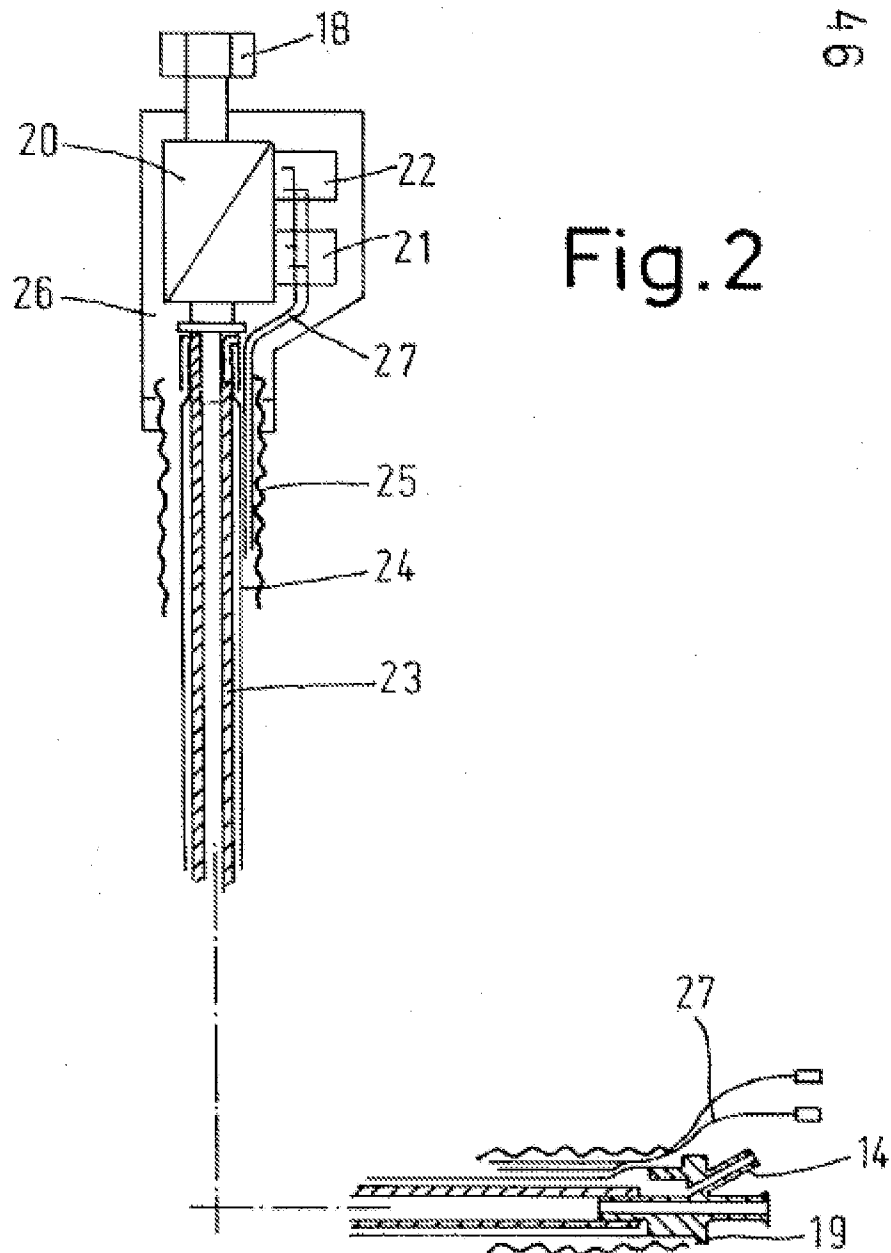
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 5, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gumm et al. (EP Patent Publication No. EP0293031) in view of Sassone (German Patent Publication No. DE19650861) in view of Schmidt (German Patent Publication No. DE1816011).

Art Unit: 1711

5. Gumm et al. teaches an aqua stopping device for a washing device having a hollow valve body including a passage (conduit 3A) formed within. Valves (21, 22) are aligned to open and close the passage. Signal wires (27) are connected to a terminal of the valves. A connecting tube (23) is attached to a lower portion of the valve body for passing wash water there through. An outer tube (24) is disposed around an exterior of the connecting tube for enclosing the connecting tube, see Fig. 2, inserted into text, below.



6. Gumm et al. does not teach the use of one wire splitting into two wires; however, it has been held that an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). It would have been obvious to use one wire (27) to conserve materials – electrical wire. Obviously, the closer to the solenoid terminals – the more wire is conserved. This introduces one problem;

Art Unit: 1711

however, which is preventing liquid from contacting the wires. Once again, it is well known by Sassone to use injection molded plastic “filler” to insulate and waterproof the electrical split. Utilizing the minimum of needed “filler” would place it at the split area only. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Gumm et al. in view of Sassone to place the filler at the area of the electrical connection only to save “filler”. Further, the specific use of “filler” is taught by Schmidt – to make electrical connects water resistant.

7. This leads to the inventive feature of the applicant’s -- inner case. Gumm et al. as modified by Sassone et al., as modified by Schmidt, does not teach an inner case; however, the applicant has not established any criticality to the feature. It appears to be an artifact from the manufacturing process used to install the filler and is not relevant in the final product. The combination of Gumm as modified by Sassone, as modified by Schmidt, appears to function in the same way as the claimed invention and no criticality has been demonstrated by the applicant's design. The applicant has shown no criticality for this design feature. Further, the “inner case” of the invention is merely a wall which forms a volume acting as a mold for the injection molding of the filler. The “filler” need not be injected but merely present to encapsulate the electrical wire.

### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1711

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON P. RIGGLEMAN whose telephone number is (571)272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/579,976  
Art Unit: 1711

Page 7

/Michael Barr/  
Supervisory Patent Examiner, Art Unit 1711

Jason P Riggleman  
Examiner  
Art Unit 1711

/J. P. R./  
Examiner, Art Unit 1711